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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,511	02/15/2006	Merryn Joy Mathie	1491.03	1183
29338	7590	10/15/2007		
PARK LAW FIRM 3255 WILSHIRE BLVD SUITE 1110 LOS ANGELES, CA 90010			EXAMINER DANEGA, RENEE A	
			ART UNIT	PAPER NUMBER
			4111	
			MAIL DATE	DELIVERY MODE
			10/15/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/568,511

**Applicant(s)**

MATHIE ET AL.

**Examiner**

Renee Danega

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/15/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Lehrman et al. (US 6307481). Lehrman teaches a system (11) taken to be the monitoring apparatus for evaluating body movement (Figure 1). The system comprises a sensor (25) disclosed as an accelerometer (column 5, line 2), and a processor (47) coupled to an RF transmitter including an RF modulator (61) for wireless association or communication to a controller or receiving unit (column 3, lines 18-19) (Figs 4, 2). He teaches the modulator having communications, such as a call for help, to a remote receiver unit (103) (Figure 6) (column 9, lines 33-45). He teaches that the processor has capability to generate state indicia taken to be performance indicia from sensed accelerative indicia (column 6, lines 6-8). He also teaches the processor (47) using outputs from the accelerometer to determine a last stable position and saving it (columns 7-8, lines 60-65 and 4-6). The last stable position is taken to be the threshold. He teaches the processor capable of comparing a set of post impact samples from the

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accelerometer to a threshold to see if it they exceed the threshold in which case an alert stage is activated, taken to be an event (column 8, lines 12-21).

- Regarding claim 2, Lehrman teaches summing outputs from the accelerometer to determine the last stable position or threshold (column 7, lines 60-67). It is inherent that summing would require more than one, or a plurality of these outputs.
- Regarding claim 7, Lehrman teaches a wireless network connecting the processor and controller (column 3, lines 18-19). As noted earlier, the modulator having communications, such as a call for help, to a remote receiver unit (103) (Figure 6) (column 9, lines 33-45).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6, 10-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over paragraph 2 as applied to claim 1 above, and further in view of Petelenz et al. (2001/0004234). The apparatus as described in paragraph 2 fails to acknowledge a capability of initiating an event after performance indicia is above or below a threshold for a designated period of time. Petelenz teaches a fall monitoring device with an accelerometer unit [0025] that requires the fall duration be less than a

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determined time threshold for an uncontrolled fall to have taken place; the fall being determined by angular rate of body angle and acceleration amplitudes [0007]. It would have been obvious for Lehrman's apparatus to have these performance capabilities in order to ensure that the change of acceleration is consistent with a fall.

- a) Regarding claim 4, Lehrman teaches a threshold of 2 seconds [0029] to be assumed. He doesn't teach how this is reached, but it would have been obvious to one having ordinary skill in the art to determine the time period by timing how long it takes people to fall.
- b) Regarding claim 5, the apparatus in paragraph 2 doesn't teach that the accelerometer determines acceleration in three orthogonal directions. However, the accelerometer unit of Petelenz's apparatus "measures three orthogonal accelerations" [0025]. It would have been obvious to apply this to Lehrman's tool in order to determine the body's three-dimensional movement.
- c) Regarding claim 6, the apparatus of paragraph 2 doesn't teach one of the three orthogonal directions to be in the vertical direction or within a designated angle of the vertical direction. Petelenz's apparatus teaches that one of the axes of the accelerometer is "more or less vertical" [0025].
- d) Regarding claim 10, the apparatus of claim 2 doesn't provide for a way to measure acceleration in three orthogonal directions. However, the accelerometer unit of Petelenz's apparatus "measures three orthogonal accelerations" [0025]. Lehrman provides a clip (23) for attaching the system to the body (Figure 1). He also teaches a sensor which in operation repeatedly

sensed “accelerative phenomena as a function of at least one accelerative characteristic” in order to determine if its within environmental tolerance and generated state indicia (column 2, lines 12-20). He further states that the processor operates to compare indicia to a threshold and controls a “suitable indicating means to initiate and alarm event” (columns 2-3, lines 59-66 and 1). It would have been obvious to perform these tasks with the tool provided in order to monitor movement of a subject.

- e) Regarding claim 11, Lehrman teaches summing outputs from the accelerometer to determine the last stable position or threshold (column 7, lines 60-67). . It would have been obvious that summing would require more than one, or a plurality of these outputs.
- f) Regarding claim 12, Lehrman teaches a threshold of 2 seconds [0029] to be assumed. He doesn’t teach how this is reached, but it would have been obvious to one having ordinary skill in the art to determine the time period by timing how long it takes people to fall.
- g) Regarding claim 13, Petelenz teaches a tool that is capable of determining “real time”, taken to be instant, rotation and gravitational force vectors by using the combination of the magnitudes of the three axes [0035, 0036, 0040]. It would have been obvious to use real time data to compare to a threshold to determine if a fall was occurring.
- h) Regarding claim 15, the apparatus in paragraph 2 doesn’t teach that the accelerometer determines acceleration in three orthogonal directions. However,

the accelerometer unit of Petelenz's apparatus "measures three orthogonal accelerations" [0025]. It would have been obvious to apply this to Lehrman's tool in order to determine the body's three-dimensional movement.

5. Claims 8, 9, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lehrman et al. and Petelenz et al. as applied to claim 3 above, and further in view of Gill et al (02/35997). Regarding claim 8, the apparatus of paragraph 4 fails to teach the first acceleration threshold as being an absence of normal expected movement or the event initiated as a result. Gill teaches that an indication of a fall is that a period of low or no motion frequently follows it. It would therefore have been obvious to one having ordinary skill in the art to have a threshold at the lowest point of expected movement in order to determine if a fall has occurred.

- Regarding claim 9, the apparatus of claim 2 doesn't teach three different thresholds for comparing three indicia over three time periods. However, Petelenz teaches measuring both the angular rate of change of the body angle and the acceleration amplitude severity thresholds to a time threshold [0007]. It would have been obvious to combine these two measurements with Gill's indicator in order to increase the accuracy of the tool. It would also have been obvious to look for these events at certain periods of time, as one having ordinary skill in the art would know that they each occur at different times in the falling sequence.
- Regarding claim 14, the apparatus of paragraph 2f doesn't teach three different thresholds for comparing three indicia over three time periods.

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However, Petelenz teaches measuring both the angular rate of change of the body angle and the acceleration amplitude severity thresholds to a time threshold [0007]. It would have been obvious to combine these two measurements with Gill's indicator in order to increase the accuracy of the tool. It would also have been obvious to look for these events at certain periods of time, as one having ordinary skill in the art would know that they each occur at different times in the falling sequence.

- Regarding claim 16, the apparatus of paragraph 2 doesn't teach one of the three orthogonal directions to be in the vertical direction or within a designated angle of the vertical direction. Petelenz's apparatus teaches that one of the axes of the accelerometer is "more or less vertical" [0025]. It would have been obvious to make an axis vertical to determine if vertical acceleration was taking place.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renee Danega whose telephone number is (571) 270-3639. The examiner can normally be reached on Monday through Thursday 7:30-5:00 eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sam Yao can be reached on (517) 272-1224. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RAD

A handwritten signature in black ink, appearing to read 'Samchuan C. Yao', with a long horizontal flourish extending to the right.

**SAMCHUAN C. YAO**  
SUPERVISORY PATENT EXAMINER